DOCUMENT RESUME

ED 149 594 FL 009 152

AUTHOR Hood, Lois
TITLE The Why's of Because.
PUB DATE 30 Sep 77
NOTE 16p.; Paper presented at the Annual Boston University Conference on Language Development (2nd, Boston, Massachusetts, Sept. 30-Oct. 1, 1977).

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Child Language; Descriptive Linguistics; *Language Development; Language Patterns; Language Research; *Language Usage; *Language Variation; *Pragmatics; Semantics; Sentence Structure; *Syntax
IDENTIFIERS *Causal Relationships

ABSTRACT

This paper examines aspects of variation in child language, and specifically how children express causal relations in complex sentences. Four particular types of variation were observed: (1) the order of clauses and the connectives used to link clauses; (2) mothers' causal statements; (3) interaction of language form and content, in the form of errors in causal statements; and (4) the interaction of language form and use, in terms of the effect of the speaking situation on the language forms chosen and the developmental sequence in the emergence of statements, questions, and responses. Eight children were seen in their homes periodically, from the time they were 24 to 41 months of age, and their speech while interacting with their parents and an investigator was recorded. The types of differences found among children in the expression of causal relations all had to do with aspects of the form and use of causal utterances, while the content of the children's causal utterances was remarkable similar. (CLK)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED149594

The Why's of Because

Lois Hood
The Rockefeller University

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Lois Hood

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

FL009152

Paper presented at the Second Annual Boston University Conference on Language Development, September 30, 1977.

One of the major findings of child language research has been the consistency among children - children who are learning the same language as well as children who are learning different languages. There is a consensus from diverse studies that children are similar to one another in what they talk about in their single word utterances and their early sentences, as well as in particular syntactic and pragmatic aspects of these early utterances.

Recently, however, there have appeared a number of studies which report on variation among children in various aspects of early language development. Variation in the form in which certain meaning relations are first expressed has been observed, for example, action ("read book," "do it") or possession ("my truck," "baby truck"), (e.g. Bloom, Lightbown and Hood, 1975; Ramer, 1976), as well as variation in phonological development, (Ferguson, Peizer and Weeks, 1973) and amount and function of spontaneous imitation (Bloom, Hood, and Lightbown, 1974). It is becoming clear that variation among children at the same overall level of language development is as much a fact of child language as is consistency among children.

In view of this, the findings I will describe have to do with differences among children. The results discussed here are very similar to the previous reports, in that the variation observed has been in language form and language use, while language content was found to be similar across children. The difference from these previous reports is that the children I will be talking about are older, from 2 to 3.5, and their language

is more complex than the children for whom variation has thus far been found. The particular aspect of later language that was the focus of this study was how children express causal relations in complex sentences.

I will briefly describe the subjects and procedures before discussing the particular kinds of variation observed. Eight children were seen in their homes periodically, from the time they were 24 to 41 months of age, and their speech while interacting with their parents and an investigator was audio recorded. Three utterance types were examined for the purpose of describing the expression of causal relations -

1) children's sentences that encode causal notions - e.g. I'm putting medicine on the lamb's leg 'cause he had a booboo.

2) causal questions children ask - e.g. (re: tape on box) Why you wrapping it around?

3) Responses children give to causal questions from adults - e.g. Adult: Why're you taking off your socks? Child: Because it's not cold outside.

These three utterance types, statements, questions and responses were analyzed in terms of language content, that is, the kinds of relationships expressed, and several dimensions of language form and language use.

The children were found to be similar to one another in language content. The meaning relations expressed in causal statements, questions, and responses were similar for all 8 children and generally showed little developmental change. Briefly, the causal utterances of the children and the adults made reference

to ongoing or imminent actions and states, often expressed a negative intent, and functioned as requests. (See Hood, 1977 for a more complete discussion of the content of causal utterances.)

The kind of variation observed in the children's causal utterances had to do with aspects of language form and language use, and not language content. Four particular types of variation were observed.

1. The first and most far reaching was in the form of the children's causal statements - both the order of clauses and the connectives used to link the clauses. While all 8 children began to express causal relations by joining 2 clauses without a connective, the children varied in their acquisition and use of particular connectives. That is, all the children began by saying such things as "I not go in bathroom/ I did tinkle," but for some children the use of _because_ was prior to and more frequent than the use of _so_ and vice versa.

An explanation for the different sequences in which _so_ and _because_ were used was found by examining the clause orders used by the different children. Child statements were classified as consisting of clauses in cause-effect order, e.g. "hold da ladder an it won't fall down", effect-cause order, e.g. "I left it open because I wanna watch it", and equivocal, where order could not be determined, e.g. "I don't have any more tape/ its all used up now." The frequency and proportion of statements in cause-effect and effect-cause order for each child at each time are shown in Figure 1. As can be seen, the children varied in their overall use of the 2 clause orders. Eric used cause-

effect order predominantly, Steven used effect-cause order predominantly and Kathryn used both orders equally often. These 3 children represent the best examples of the 3 patterns observed, with the other 5 children falling into one or another, but not so neatly. In all, 2 children, Eric and Mariana, used cause-effect order predominantly; 2 children, Gia and Kathryn, used both orders equally often; and 4 children, David, Peter , Paul and Steven, used effect-cause more often.

This finding - that the children varied in their use of particular clause orders - was particularly interesting in view of the fact that particular clause order differences were established before the children ever used connectives. Figure 1 also shows the time at which the major connectives began to be used in the children's causal statements. When the children began to use connectives, the ones used by each child were generally consistent with his or her tendency to use particular clause orders. For example, Kathryn, with no preferred order, began to use because and so at about the same time. Eric, with cause-effect order predominating, used so first and only later because, while Peter and David with effect-cause order used because first and later so. Only Mariana and Paul showed connective use at odds with clause order tendencies (Steven never used connectives productively).

Even more important was the use of connectives with particular clause orders. The children used the right connectives with the right orders; they did not make mistakes. That is, they rarely said things like "I hurt my toe because there's a bandaid on it."

While several other interactions between clause order and connective were observed, for the purposes of describing the variation among the children, the important finding was the three main patterns of clause order and its early relation to connective use.

2. The second type of variation observed was also one of language form. The same analysis of the children's causal statements just described was performed on the mothers' causal statements. (This was possibly for only 4 of the 8 children, for whom ample mother-child data were available). That is, mothers' causal statements were categorized as to clause order: cause-effect, effect-cause, or equivocal. Figure 2 shows the proportion of mothers' statements in cause-effect and effect-cause order on the left hand side of the figure. Next to the data from each mother, on the right, are the corresponding proportions in her child's speech.

There are several interesting patterns suggested here. First, with attention turned to the mother data only, a comparison of the four mothers shows them to be different from one another. David's mother used cause-effect overwhelmingly in the early samples; gradually the use of the two orders became nearly equal. Mariana's mother showed variability in the early and late points, although in the middle samples she used the two orders with nearly equal frequency. Paul's mother and Steven's mother had effect-cause order predominating. Thus, just as the children were different from each other in their use of the two clause orders, the mothers also were different from each other. The next step was to

determine if the differences among the mothers matched the differences among their children. Briefly, on various measures the mothers appear to be more similar to their children than to each other and the differences among the mothers do coincide with differences among their children (Hood, 1977).

3. The third type of variation observed had to do with the interaction of language form and content. As mentioned, errors in causal statements - e.g., use of because with cause-effect or and and so with effect-cause was rare, .06 of all causal statements. Such errors were restricted in 2 ways: 1) almost all the errors were the use of because with cause-effect. 2) They were restricted to one child, David. It turned out that David's errors in using because illustrate variation in the expression of a particular causal meaning.

There are two meanings so can have as a causal connective. It can mean "therefore" as in Gia's "The second book is old so I hafta buy a new one," or it can mean "so that," or "in order that," as in Eric requesting Lois "you put this gate up so the baby can't get in." When all the children's statements with so were examined, it was found that so progressed from a "so that" meaning to a "therefore" meaning, for all the children except David. The next step was to examine the because errors - the use of because with cause-effect order - to see if these utterances had a "so that" or a "therefore" interpretation. The result - such because statements overwhelmingly had a "therefore" interpretation. In 55 out of 57 errors because meant "therefore"

And more important, 89% of David's because errors were occurrences of because meaning "therefore". This difference between David and the other children is schematized in Figure 3.

David's errors then were indeed systematic. Unlike the other children who gradually began to express a "therefore" relation with so, David expressed it with because, his predominant connective.

4. The fourth type of variation observed had to do with the interaction of language form and use. One aspect of language use has to do with the different speaking situations that occur when one makes a statement, asks a question, or responds to someone else's question. A developmental sequence was found in the emergence of these 3 utterance types. The children made causal statements and the adults asked causal questions at about the same time - 2 years of age - but the children did not respond appropriately or meaningfully to the adult's questions until some months later. Further, for 7 of the 8 children, causal questions of their own were the last utterance type to emerge, at about age 3. But one child, Paul, asked questions before he responded to them appropriately. So, for 7 children the order statements, responses, questions holds, while for Paul, the order of emergence is statements, questions and responses.

In addition to Paul's questions being different from the other children's in terms of their frequency relative to other kinds of utterances, they differed in three other ways - in their absolute frequency, in their form, and in their discourse relation to prior speech.

Table 1 illustrates these 3 differences between Paul and the others. First, in terms of frequency, notice in the Total column that all the other children have a least 2 samples where the number of questions was very low (< 5) before questions became frequent. In contrast, Paul had no why questions in the first 2 samples and 13 in the third. While the other children began to ask why questions gradually, Paul did rather suddenly. Second, in terms of form, the other children had instances of multi-word why questions among their very first why questions, and single word why questions actually increased proportionately (for example, for Eric and Kathryn). In contrast, Paul began with all 13 of his why questions as the single word why, and continued to have overwhelmingly single word questions.

The last difference between Paul's questions and the other childrens' relates to the relation of the question to previous speech. Children's questions either were contingent on a prior adult utterance and continued that topic, (for example, Adult: Let's leave your blanket here/ You can't keep your blanket. Child: Why?) or, they were child initiated (or non-contingent). Non-contingent questions were always rare, but for all the children except Paul they occurred in the early samples and there were always both non-contingent and contingent questions in the first sample where questions were productive (> 5). For Paul, contingent questions were always the rule. Thus, Paul's why questions differed from those of the other children in form, in their relation to prior speech, and in their developmental progression in relation to statements and responses.

Similar variation in the development of why questions was reported by Brown (1968) for his 3 subjects, Adam, Eve, and Sarah. Eve and Sarah, like 7 of the children in this study, did not produce why questions until they gave well-formed responses to adult why questions. Adam was similar to Paul. The subject described by Blank (1975) and Blank and Allen (1975) also fits the pattern of Paul and Adam, with questions being asked before well-formed responses were given. In addition, there are more specific similarities between that child and Paul. The combined results from these 12 children suggest two alternative courses of development of why questions by children.

In summary, this discussion has focused on variation in child language. The types of differences found among children in the expression of causal relations all had to do with aspects of the form and use of causal utterances, while the content of the children's causal utterances was remarkably similar. Such findings are consistent with previous reports of variation in the literature, and they provide evidence for what appears to be a consistent pattern. More important, the variation observed here had to do with the development of complex sentences by children up to 3.5 years of age, while so far, variation has been found in the development of simple sentences by younger children. These results suggest that such a pattern may not be limited to the very earliest stages of development. Rather, it is possible that similarity in content and variation in form and use will prove to be a continuing pattern, observable whenever new linguistic structures are being learned.

References

Blank, M. Mastering the intangible through language. In D. Aaronson and R. Rieber (Eds.), Developmental psycholinguistics and communication disorders. New York: New York Academy of Sciences, 1975.

Blank, M. and Allen, D. Understanding "Why": Its significance in early intelligence. In M. Lewis (Ed.), Infant intelligence. New York: Plenum Press, 1975.

Bloom, L., Hood, L., and Lightbown, P. Imitation in language development: If, when, and why. Cognitive psychology, 1974, 6, 380-420.

Bloom, L., Lightbown, P., and Hood, L. Structure and variation in child language. Monograph of the Society for Research in Child Development, 1975, No. 2.

Brown, R. The development of Wh questions in child speech. Journal of Verbal Learning and Verbal Behavior, 1968, 7, 279-290.

Ferguson, C.A., Peizer, D. and Weeks, T. Model-and-replica phonological grammar of a child's first words. Lingua, 1973, 31, 35-39.

Hood, L. A longitudinal study of the development of the expression of causal relations in complex sentences. Unpublished Ph.D. dissertation, Columbia University, 1977.

Ramer, A. Syntactic styles in emerging language. Journal of Child Language, 1976, 3, 49-62.

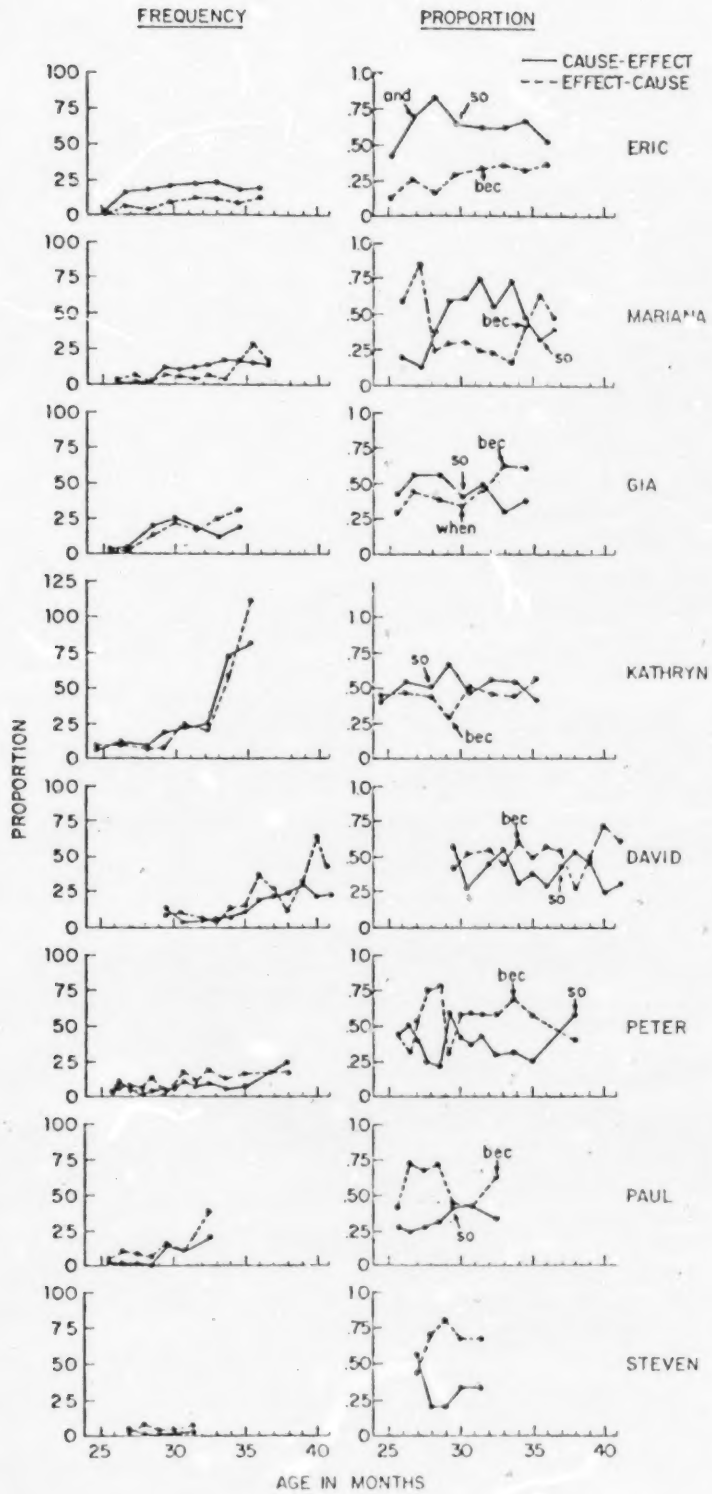

Figure 1. Frequency and proportion of child statements in cause-effect and effect-cause order for each child.

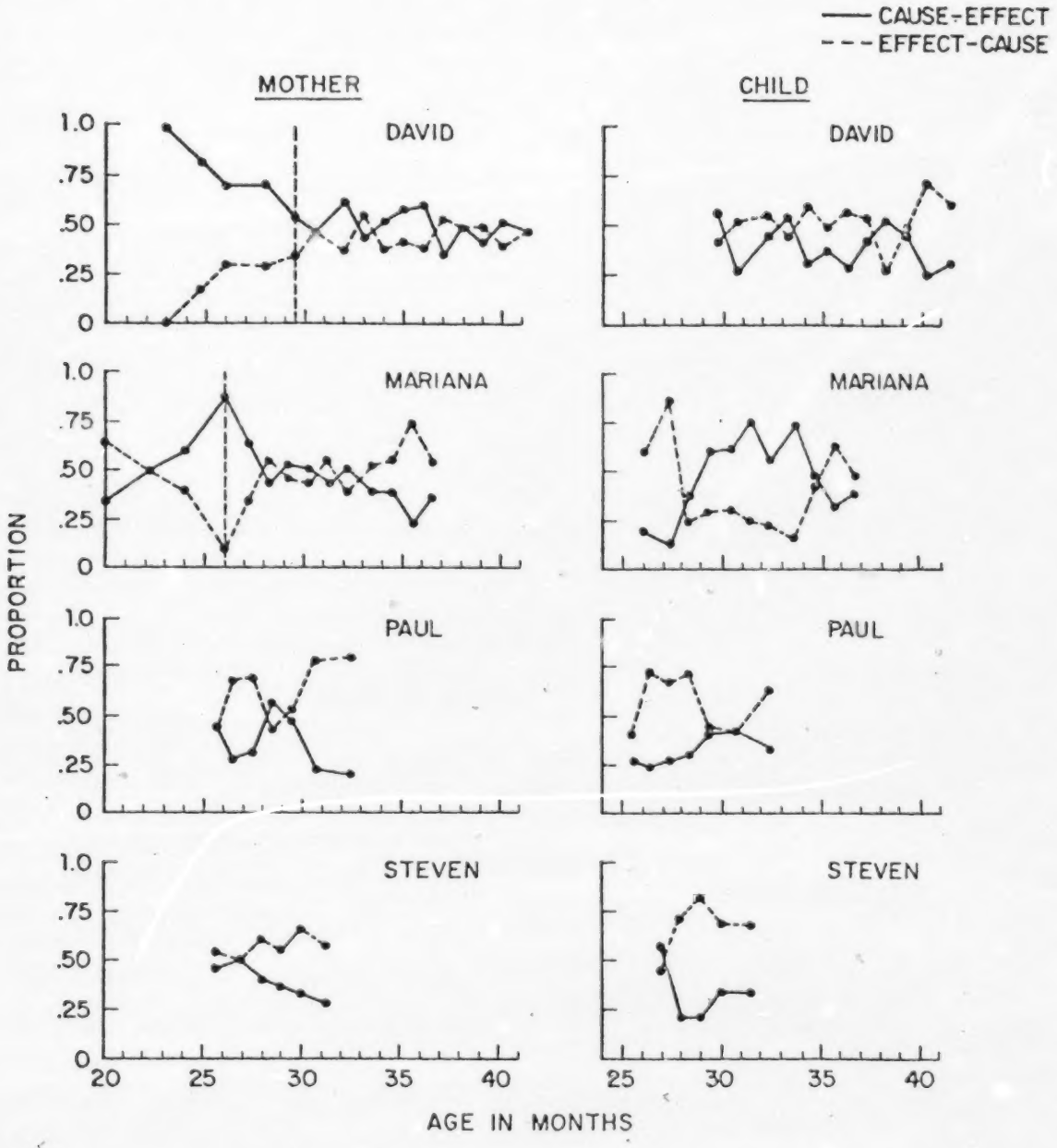

Figure 2. Proportion of statements in cause-effect and effect-cause order for four mother-child pairs.

Note. Data points to the left of the dotted line on the graphs for David's and Mariana's mothers represent supplementary data for earlier video-taped sessions.

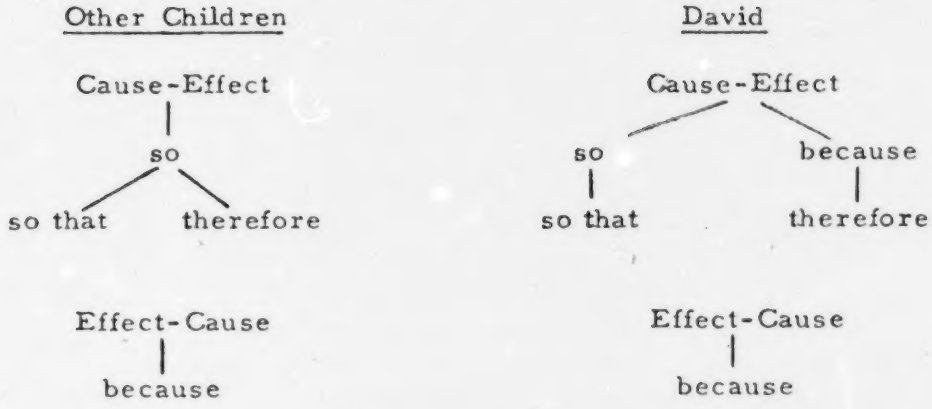
Other Children
Cause-Effect
so
so that
therefore
Effect-Cause
because
David
Cause-Effect
so
because
so that
therefore
Effect-Cause
because

Fig. 3

Table 1

Contingent and Non-Contingent Child Why Questions

		Contingent			Non-Contingent	Total
		Single-Word	Multi-Word	Single-Word/ Multi-Word Sequences		
David	VIII	-	-	-	1.0 (1)	1
	IX	.75 (3)	-	-	.25 (1)	4
	X	.50 (3)	.33 (2)	-	.17 (1)	6
	XI	.20 (1)	.20 (1)	.20 (1)	.40 (2)	5
	XII	.67 (4)	.17 (1)	-	.17 (1)	6
Eric	V	-	-	-	1.0 (4)	4
	VI	-	-	-	1.0 (1)	1
	VII-IX	-	-	-	-	0
	X	.50 (1)	.50 (1)	-	-	2
	XI	.27 (7)	.31 (8)	.12 (3)	.31 (8)	26
	XII	.54 (45)	.08 (7)	.26 (22)	.12 (10)	84
Gia	VI	1.0 (1)	-	-	-	1
	VII	-	-	-	-	0
	VIII	.57 (4)	.14 (1)	-	.29 (2)	7
	IX	.60 (6)	-	.30 (3)	.10 (1)	10
	X	.56 (9)	-	.19 (3)	.25 (4)	16
	XI	.90 (18)	-	.05 (1)	.05 (1)	20
Kathryn	V	-	-	-	1.0 (1)	1
	VI	1.0 (1)	-	-	-	1
	VII	.33 (1)	.33 (1)	-	.33 (1)	3
	VIII	.49 (28)	.37 (21)	-	.14 (8)	57
	IX	.65 (28)	.21 (9)	-	.14 (6)	43
	X	.69 (34)	.20 (10)	.02 (1)	.08 (4)	49
Mariana	IX	-	-	-	1.0 (1)	1
	X	.33 (1)	-	-	.67 (2)	3
	XI	.54 (7)	.08 (1)	-	.38 (5)	13
Paul	III	1.0 (13)	-	-	-	13
	IV	.90 (19)	-	-	.10 (2)	21
	V	.91 (29)	.06 (2)	-	.03 (1)	32
	VI	1.0 (12)	-	-	-	12
	VII	.88 (14)	.12 (2)	-	-	16
Peter	XVI	1.0 (4)	-	-	-	4
	XVII-XVIII	-	-	-	-	0
	XIX	-	-	-	1.0 (1)	1
	XX	.73 (33)	.04 (2)	-	.22 (10)	45
Steven	VI	1.0 (1)	-	-	-	1